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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/536,523	11/30/2005	Thomas Garoff	05-370	9469

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EXAMINER	
MARCANTONI, PAUL D	
ART UNIT	**PAPER NUMBER**
1755	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/536,523	GAROFF ET AL.	
	Examiner	Art Unit	
	Paul Marcantoni	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,5,9-15,17-27,29-40,42-46 and 48-57* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,5,9-15,17-27,29-40,42-46 and 48-57* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Applicant's arguments filed 9/13/06 have been fully considered but they are not persuasive. The applicants' amendment necessitated the rejection below:

New Matter:

Claims 1, 3, 5, 9-15, 17-27, 29-40, 42-46, and 48-57 are rejected under the first paragraph of 35 USC 112 and 35 USC 132 as the specification as originally filed does not provide support for the invention as is now claimed.

The terms "0.1" as a lower limit in claim 1 in the range of 0.1 to 2 for n is new matter. It has no literal support and is not disclosed and thus is new matter.

35 USC 102:

Claims 1, 3, 5, 9-15, 17-27, 29-40, 42-46, and 48-57 are rejected under 35 USC 102(b) as being anticipated by Gessell (US 4,496,660) and Garoff (WO 01/55230).

35 USC 103:

Claims 1, 3, 5, 9-15, 17-27, 29-40, 42-46, and 48-57 are rejected under 35 USC 103(a) as unpatentable over WO 99/55741 (Vereecke).

Response to Arguments:

Gessell

Applicants argue there is no disclosure of the support. In rebuttal, Gessell does make the support by mixing the Mg component with the Al component to make a precipitate which is the solid support. The applicants also argue it is not known what happens during hexane treatment. Yet, this is simply a washing step and is within the

disclosure of applicants' own claimed invention (see applicants claim 5 teaching linear aliphatic-hexane is a linear aliphatic).

The applicants also argue the order of addition of Mg and Al is of great relevance (ie critical) because the addition of Mg to Al leads to a particulate support with desired morphology. In rebuttal, it is the examiner's position that the order of addition would appear to give the same results. Further, changes in the sequence of adding ingredients would have been obvious to one of ordinary skill in the art absent evidence to the contrary. *In re Gibson 5 USPQ 230*. Also MPEP 2144.04 for Legal Precedent as Source of Supporting Rationale.

The applicants argue that their desired morphology and Mg:Al ratio is obtained by a controlled washing step. In rebuttal, Gessell teaches in Example 22 washing with hexane in a controlled manner. Gessell even teaches repeated decantation (removing the supernatant which also means repeated washing) 2 more times.

Garoff:

The applicants also allege a solid support is never formed and they present statements that the order of addition for their instant invention is Mg added to Al versus Garoff's Al added to Mg and they state that their invention leads to a precipitant (solid support) versus Garoff leading to a soluble complex and soluble solution with no precipitate. In rebuttal, the "order" of addition (whether Mg to Al or Al to Mg) is NOT the reason why there is no precipitate formed (thus no solid support). The reason there is no solid support being formed is that in Example 2 on page 16, lines 20-25 Garoff adds toluene to prevent precipitation. Garoff does not say that toluene must be added to his

process but he does so only to prevent precipitation (It would occur if toluene was not added therefore). This is an obvious design choice of Garoff to hold his catalyst in soluble (versus insoluble precipitate form) form and the use of one or the other (precipitate physical form or solution) depends upon the end use or application. It is the examiner's position that Garoff could have allowed precipitation to occur to lead to the same precipitate product formed by applicants though by adding Al to Mg which is the reverse order of applicants' process.

The applicants next argue Examples 4 and 5. No response is necessary because this is not relevant as is it relied upon by the examiner for his rejection. See examiner's first office action wherein he states in parentheses only examples 2, 3, and 6. He does not rely upon any other examples for his rejection.

Vereecke:

The applicants argue that the examiner concedes he does not teach the specific ratio of Al/Mg yet states that this ratio can be arrived at without undue experimentation. It is the examiner's position that this still holds. It would have been obvious to one of ordinary skill in the art at the time of applicants' invention being made to vary the parameters of the primer such as the ratio of binders to achieve a desired result. It is well settled that optimizing a result effective variable is well within the expected ability of a person of ordinary skill in the art. *In re Boesch, 617 F 2d 272,205 USPQ 215 (CCPA 1980); In re Aller, 220 F2d 454, 105 USPQ 233 (CCPA 1955).*

The applicants again argue the order of adding (Mg first then Al) versus the reverse order of addition for Vereecke. The examiner maintains that changes in the

order of addition would have been obvious design choice to one of ordinary skill in the art absent evidence to the contrary. The precipitate (catalyst support) of both should be expected to be the same and applicants have not presented evidence that they are different.

The applicants also argue that the reverse order of addition on page 5, paragraph 2, would lead to a catalyst of poor morphology being obtained. The examiner disagrees. That same paragraph also states if the mixing is perfomed without appropriate control it would lead to a catalyst of poor morphology. Vereecke does mention the reverse order of addition but the catalyst of poor morphology is not obtained in all instances but only those without appropriate control. If the reverse order process of adding Al to Mg is done under controlled conditions (controlled precipitation) it too (like adding Mg to Al) would result in good control of the particle size and particle size distribution to be achieved.

Even assuming the order of mixing Al and Mg does make a difference and lead to different particle sizes or different particle size distribution as they allege on page 10 and top of page 11 of Vereecke doing the reverse addition, the applicants argue limitations not claimed. Vereecke does teach producing a catalyst of a narrow particle size distribution (first 10 lines of page 11 of Vereecke). However, the applicants own claims contain no limitations with respect to particle size or particle size distribution. Vereecke only says that it cannot be used as a catalyst with narrow particle size distribution. He also does not say it can never be used as a catalyst or catalyst support

but only in a narrow particle size distribution. Applicants claims contain no limitation with respect to particle size distribution..

Applicants also argue on page 20 of their response Vereecke does not utilize a solution of a dialkoxy magnesium compound and uses rather only dialkylmagnesium compounds. In rebuttal, claim 1 allows for dialkyl magnesium compounds. The applicants also argue no teaching of pre formed dialkoxymagnesium compounds. Yet, this is formed by the addition of dialkyl magnesium compounds to alcohol. Further with respect to pre-formed dialkoxymagnesium compounds, whether it is preformed or not, the same ultimate compound (Mg compound) in the prior will be used in the process to mix with the Al compound to make the catalyst support.

Applicants argue Vereecke is silent with respect to washing. The examiner disagrees as Vereecke teaches on page 11, paragraph 4 that magnesium chloride is washed as described for catalyst A. Applicants argue that Vereecke does not teach a washing step using heptane to clean the support from unreacted components. The examiner disagrees. Vereecke teaches on page 8 , paragraph 4, that $MgCl_2$ is washed with 250 ml portions of heptane 4 times at 50 mg. After washings (note it is plural or more than one washing), the white magnesium chloride is slurried in about 250 ml of heptane.

Finally, the applicants argue in the second to last paragraph of page 21 of their response that their invention does not require the addition of additional reducing material and is completed by simply contacting $TiCl_4$ with the support material. In rebuttal, even if the prior art teaches additional reducing material, applicants use

comprising claim language. Comprising leaves the claim open for the inclusion of unspecified ingredients even in major amounts. Ex parte Davis et al., 80 USPQ 448 (PTO Bd of App.1948).

It is the examiner's position that the finality of this office action is proper and the rejection of new matter was necessitated also by amendment. All prior art is exactly the same as that used in the first office action.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Marcantoni whose telephone number is 571-272-1373. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached at 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Paul Marcantoni
Primary Examiner
Art Unit 1755